

REMARKS/ARGUMENTS

Claims 1-10 14-16 and 18-20 are pending in this application. Claims 11-13 and 17 are canceled without prejudice or disclaimer and claims 1, 8, 10 and 17 are amended. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); and/or (3) place the application in better form for appeal (if necessary). Entry is thus requested.

A. The Office Action rejects claims 17-18 under 35 U.S.C. §112, first paragraph. Applicants respectfully submit that the above amendments obviate the grounds for the rejection. Withdrawal of the rejection of claims 17-18 is respectfully requested.

B. The Office Action rejects claims 1-20 under 35 U.S.C. §103(a) over U.S. Patent No. 6,292,667 to Wallentin et al. (hereafter "Wallentin") and U.S. Patent No. 6,240,083 to Wright et al. (hereafter "Wright"). The rejection is respectfully traversed.

1. Applicants respectfully submit that Wallentin and Wright, individually or in combination, do not teach or suggest at least features of a system including a plurality of radio network controllers and a location management unit that manages service state information,

location information and connection information of said active terminal and transferring to a first one of said radio network controllers, medium access control layer state information and radio resource control information of said active terminal for a second one of said radio network controllers when said active terminal moves from the second one to the first one in a suspended state or a dormant state and combinations thereof as recited in claim 1.

The Office Action asserts that Wallentin discloses a location management unit being an inter-RNC transport link 32 to transfer information (citing column 6, lines 55-63 of Wallentin). Applicants respectfully submit column 6, lines 55-63 discloses the inter-RNC transport link 32 utilized the transport of control and data signals facilitating the inter-RNC soft-handovers. See column 6, lines 58-59. Thus, the inter-RNC transport link 32 is a media to deliver some information, but is not a main body of data transportation. See Tables 1 and 2 in Wallentin.

The Office Action further asserts that Wallentin discloses a core network handles location updating and paging initiation for the location area (citing column 4, lines 45-50 of Wallentin). Applicants respectfully submit the core network in Wallentin is not in forward communication with a mobile station (MS) during an idle state, but merely receives a location update or comparable message to a HLR (and associated VLR) that provides for location registration, when the MS moves from one area to another in an idle state. See column 11, lines 4-26 of Wallentin. Thus, the core network shown in Figs. 1-2 of Wallentin discloses providing a location registration (see column 2, lines 1-16 of Wallentin), but not MAC state information

and radio resource control information of a terminal or a point-to-point protocol (PPP) connection between a new RNC and a terminal.

In contrast, embodiments of the present invention are not related to location registration of the HLR but provide exemplary apparatus and methods to transmit some MAC state information and radio resource control information of the terminal, which can beneficially realize the sharing and/or synchronization of information. Embodiments of the present invention provide for a case that a terminal is in suspended or dormant state, and a Location Management Function (LMF) transmits medium access control (MAC) state information and radio resource control information of the terminal to a target RNC and for that reason after the terminal moves to a new RNC, embodiments can maintain a PPP connection between the new RNC and a terminal. Claim 1 recites a location management unit transferring to a first one of said radio network controllers, medium access control layer state information and radio resource control information of said active terminal for a second one of said radio network controllers when said active terminal moves from the second one to the first one in a suspended state or a dormant state. Applicants respectfully submit an initiation of the transferring is recited by “when said active terminal moves”. Applicants respectfully submit that Wallentin does not teach or suggest at least a feature of a location management unit and combinations thereof as recited in claim 1.

2. The Office Action admits Wallentin does not teach or suggest maintaining medium access control layer state information. See page 6, item 8, lines 15-18 of the Office

Action. The Office Action asserts Wright teaches such features lacking from Wallentin. See page 6, line 19-page 7, line 6 of the Office Action.

Applicants respectfully submit that Wright does not teach or suggest at least features of a location management unit and combinations thereof recited in claim 1 and lacking from Wallentin. Further, the Office Action does not assert that Wright teaches or suggest a location management unit as recited, but asserts that Wright teaches “while in a suspended or a dormant state, medium access control layer state information and radio resource control information of said active terminal are maintained (citing column 6, lines 34-50 and column 28, lines 5-8; note, the definition of idle is given in column 2, lines 21-25 and specific reference to the MAC layer is made in the latter of the cited passages).” The cited sections of Wright are reproduced below.

The forward channel transmission apparatus also includes receiving means for receiving a data packet or a reservation request including an identifier associated with the requesting device on the reverse channel. Optional synchronizing means synchronizes operations of the broadcasting means and the receiving means. Reading means is provided responsive to the receiving means for reading a received reservation request to determine the identifier associated with the requesting device. The forward transmission apparatus further includes determining means responsive to the reading means for determining if reservation mode access to the reserve channel is available to the requesting device and for determining if reservation mode or contention mode will be selected for the reverse channel. Generating means is provided responsive to the determining means for generating the channel control packet including setting the reservation or contention mode indication and the identifier (Wright: column 6, lines 34-50).

Furthermore, the subscriber MAC layer is only permitted to add additional data packets to the transmission queue while in the idle state (1) (Wright: column 26, lines 5-8).

Applicants respectfully submit the first citation does not discuss operations occurring during an idle state or medium access control operations; and the second citation discusses a subscriber MAC, which is not part of a core network in Wallentin and thus, even if combined with Wallentin does not teach or suggest any modification to the core network in Wallentin. Applicants respectfully submit that Wright combined with Wallentin merely discloses a location registration occurs when a mobile station moves from one area to another.

Thus, Applicants respectfully submit Wright does not teach or suggest medium access control layer state information and radio resource control information of said active terminal for a second one of said radio network controllers when said active terminal moves from the second one to the first one in a suspended state or a dormant state; let alone a location management unit transferring (to a first one of said radio network controllers) the same and combinations thereof as recited in claim 1.

For at least the reasons set forth above, Applicants respectfully submit claim 1 defines patentable subject matter. Claims 8 and 10 define patentable subject matter for at least reasons similar to claim 1. Claims 2-7, 9 and 14-20 depend from claims 1, 8 and 10, respectively, and therefore also define patentable subject matter for at least that reason as well as their additionally

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recited features. Claims 11-13 and 17 are cancelled without prejudice or disclaimer. Withdrawal of the rejection of claims 1-20 under Section 103 is respectfully requested.


CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carl R. Wesolowski**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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